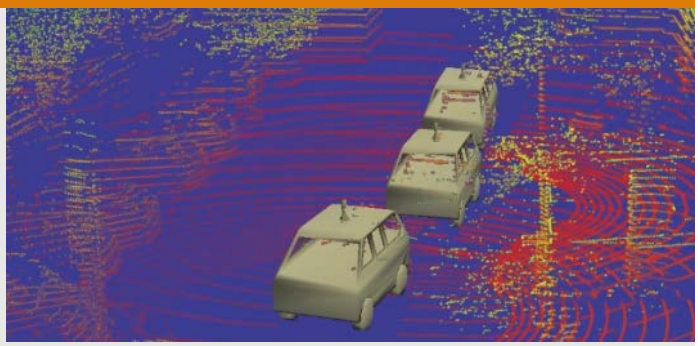
German Research Center for Artificial Intelligence

DaBrEM - Dalian - Bremen Electric Mobility

Cooperation of the Model Regions Bremen/Oldenburg and Dalian

Concept: Vehicles drive autonomously in a convoy with virtual drawbar



Visualized LIDAR sensor values in convoy with virtual drawbar

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The cooperation of the partner cities Bremen and Dalian in northeastern China is the basis of this project. On Bremen's side, the data collection and analysis of fleet tests with semi-autonomous concept cars, and the technology testing of different components was the primary goal. On Dalian's side fleet tests with electric vehicles for public transport were conducted. These cars were also monitored by a data logging system and analyzed later on.

City of the future

In both Dalian and Bremen, city districts were selected to perform fleet tests. These areas are representative for future mobility scenarios. Also, they are used to test innovative, autonomous vehicle concepts. In Bremen, four conventional electric vehicles were modified to autonomous concept vehicles and taken into use. The aim was to implement a road train concept for the so-called "Gated Areas". All vehicles were equipped with refined sensors, actuators and control logic. Their interaction allows for an active path guide with path planning for more than one vehicle. In this way, several vehicles can automatically drive in convoy.
Extensive data logging and analysis systems were used to store and analyze data of all vehicles involved in the fleet tests. Thus, conclusions about the behavior of potential users in the city of the future could be drawn to assess the effects of the ever-changing culture of mobility.

Technology testing and test methods

As part of a technology work package, testing methods are developed to facilitate the classification, certification and approval of components for electric mobility.

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Modellregionen Elektromobilität

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